Swine Pseudorabies
Threat to Domestic Swine Herds

About Swine Pseudorabies

Pseudorabies, also referred to as "Aujeszky's Disease", was identified by Dr. Aladar Aujeszky in Hungary in 1902. Pseudorabies is a highly contagious, economically significant disease found in swine. This herpes viral infection causes central nervous system (CNS) signs and high mortality rates in young swine and respiratory illness in older swine. Swine are the natural host for this disease and are the only animals to become latent carriers. Feral swine are considered a natural reservoir in Texas, and may be asymptomatic. The virus can infect nearly all domesticated and wild mammals including cattle, sheep, goats, cats, and dogs. Horses may become infected as well, though it is rare.

[It is particularly important to note that Pseudorabies is not known to infect humans and the meat from swine that pass inspection is considered safe for human consumption.]

How is the Disease Spread?

Pseudorabies is transmitted when infected swine have direct or sexual contact with other swine. The disease is usually spread directly from nose-to-nose contact. Venereal transmission is possible, and may be the most important method of transmission in wild feral swine. Under favorable conditions the virus can survive for several days in contaminated bedding and/or water. Piglets can also be infected prior to birth. Widespread viral contamination enables the disease to move quickly through a herd. Once the virus has entered a population, it continues to circulate indefinitely unless an eradication plan is conducted.

Symptoms

Pseudorabies can cause a high percentage of death loss in piglets less than a month old. Within 24 to 36 hours after exposure to the virus, infected piglets may develop a high fever, respiratory distress, vomiting and convulsions. Death can occur in less than three days. Older swine which become infected may simply develop short term flu-like symptoms with low mortality rates. Infected sows may abort or absorb their fetuses. Even after recovery, swine with a latent infection may intermittently shed virus causing future disease outbreaks in the herd.

Pseudorabies has been dubbed "Mad Itch" when it affects cattle and sheep. The suffering animals rub their skin against trees, fences or other objects in an effort to relieve intense itching. The clinical signs are a combination of CNS signs, pharyngeal paralysis and profuse salivation that resembles rabies. Affected livestock typically die within 1-2 days.

Test and Treatment

The most widely used method of identifying animals affected with Pseudorabies is a blood test for the presence of antibodies against the virus. Identification of the virus in infected tissue is the absolute conformation of infection but presence of antibodies is indicative of past or present exposure and warrants concern.

Since Pseudorabies is a viral infection, antibiotics have no effect against the disease.

Risks

The U.S. Department of Agriculture (USDA) has declared all states free of Pseudorabies in commercial swine operations. Swine are allowed to move with fewer testing requirements and restrictions as a result of that designation.

U.S. is Pseudorabies Free

Recognizing the disease risk posed by feral swine, swine herds are now classified in one of three categories:

1. Feral Swine - High Risk: Swine living all or any part of their lives as free roaming animals
2. Transitional Production Swine - Moderate Risk: Swine, that because of their management or facilities, have a reasonable opportunity for exposure to free-ranging or captive feral swine
3. Commercial Production Swine - Low Risk: Swine continuously managed and housed to prevent exposure to transitional or feral swine

Surveillance and Record Keeping

Surveillance for Pseudorabies and Swine Brucellosis (another disease eradication program) continues in Texas. Blood samples are collected at the livestock market from sexually intact swine six months of age or older, unless the animals originate from a herd with a recognized disease free status, or proof is provided that a negative test was obtained in the previous 30 days.

At Texas slaughter plants, samples are taken from mature sows and boars that can be traced to a herd of origin. This includes swine delivered to slaughter plants under direct consignment by the producer, or through a livestock market with back tag identification. Blood samples are forwarded to the Texas State/Federal Laboratory and if samples are positive on the screening test they are forwarded to the National Veterinary Services Lab (NVSL) for confirmatory testing.

Record keeping is a vital part of disease surveillance and management. TAHC regulations require swine dealers to maintain records for at least two years on animals bought and sold, making it possible to track animal movement if disease is detected.

Dealers are those who buy or sell swine in commerce:

- On their own account
- As an employee or agent of the vender, the purchaser, or both
- On a commission basis

While this includes slaughter plants, livestock markets and commission merchants, it exempts individuals who buy or sell swine as part of their breeding, feeding or stocker operation. Records required include the seller and buyer name, address and county of origin of the swine and the number of animals bought or sold. Animals must be described by listing the sex, breed and some form of individual identification numbers. Records at auctions and commission firms must show the delivery vehicle license number.

What if Pseudorabies is detected?

When infection is detected in a domestic swine herd, the animals are quarantined. The owner may choose to depopulate the herd or have the herd undergo repeated testing and removal of infected or incubating animals until the herd is cleared of the disease.

Often, an owner may elect to depopulate the herd by selling them for slaughter. Depopulation allows the producer to return to business quickly.

When they are available, federal funds help offset losses from depopulation.

Protect Swine from Pseudorabies

1. Keep feral swine OUT. If feral swine exposure occurs in your herd, contact your private veterinarian or the TAHC.

2. Buy only tested animals. This is a "given" if you purchase breeding swine six months or older at the livestock market. If you purchase by private treaty, ask an accredited veterinarian to collect blood samples and have the tests run. Consider buying replacements and additions from herds that are tested under a routine protocol and have earned the TAHC's Pseudorabies qualified and validated brucellosis free statuses.

3. Isolate newly acquired stock for 30 days. Keeping newly acquired animals separate from the herd for 30 days can save money in the long run. Watch for signs of illness and consider having the animals retested before commingling them into the main herd. If the animals become ill, destroy, or at least disinfect all bedding, equipment, feed, water, and other objects that could be contaminated.

Practice good biosecurity. Don't carry contaminated equipment or wear soiled clothing from an isolation pen to the main herd.

4. Check with the seller before moving new stock from isolation to the main herd. Ask if disease has been diagnosed in the herd of origin since your purchase.

5. Weigh the risk of sharing a boar. Having the animal tested prior to using it is cheaper than dealing with disease.

6. Practice "all-in, all-out" with feeder pigs.

Information provided by the
Texas Animal Health Commission (TAHC)
P.O. Box 12966-2966
Austin, TX 78711
Phone: 1-800-550-8242

Website: www.tahc.texas.gov
Facebook: www.facebook.com/TexasAHC
Twitter: www.twitter.com/TAHC

March 2013